



# DoDIIS Conference Metadata Workshop

# WELCOME



## Agenda

- Introductions / Workshop Purpose
- DDMS Introduction Presentation
- FAA DDMS Example Presentation
- Group Exercises
- Recap of the Exercise / Group Presentations
- Wrap-Up Discussion



# DoDIIS Conference Metadata Workshop

# INTRODUCTION S



# DoDIIS Conference Metadata Workshop

## **Purpose**

This workshop will explain the use of the DoD Discovery Metadata Specification (DDMS) and related metadata schema extensions and give the attendees some hands-on experience with discovery metadata and the associated directives from the IC and DoD.

## **Why Do We Care??**

DDMS is used by the DoD Communities of Interest (COI) as the standard for publishing Discovery Metadata. The Distributed Common Ground/Surface System (DCGS) COI uses DDMS within its DCGS Integration Backbone (DIB) as the standard for Discovery of intelligence related information. It organizes information in a way that enables the Warfighter to find what they are looking for using a DIB.





# DoDIIS Conference Metadata Workshop



**Defense Information Systems Agency**

Department of Defense

## DoD Discovery Metadata Specification (“DDMS”)

**Overview for DoDIIS Conference**

**23-27 May 2010**

**With thanks to Joe Pantella and Paul Lunceford of  
FGM, Inc.**



# DDMS Introduction

- **“The Department of Defense Discovery Metadata Specification (DDMS) defines discovery metadata elements for resources posted to the community and organizational shared spaces.” [DDMS]**



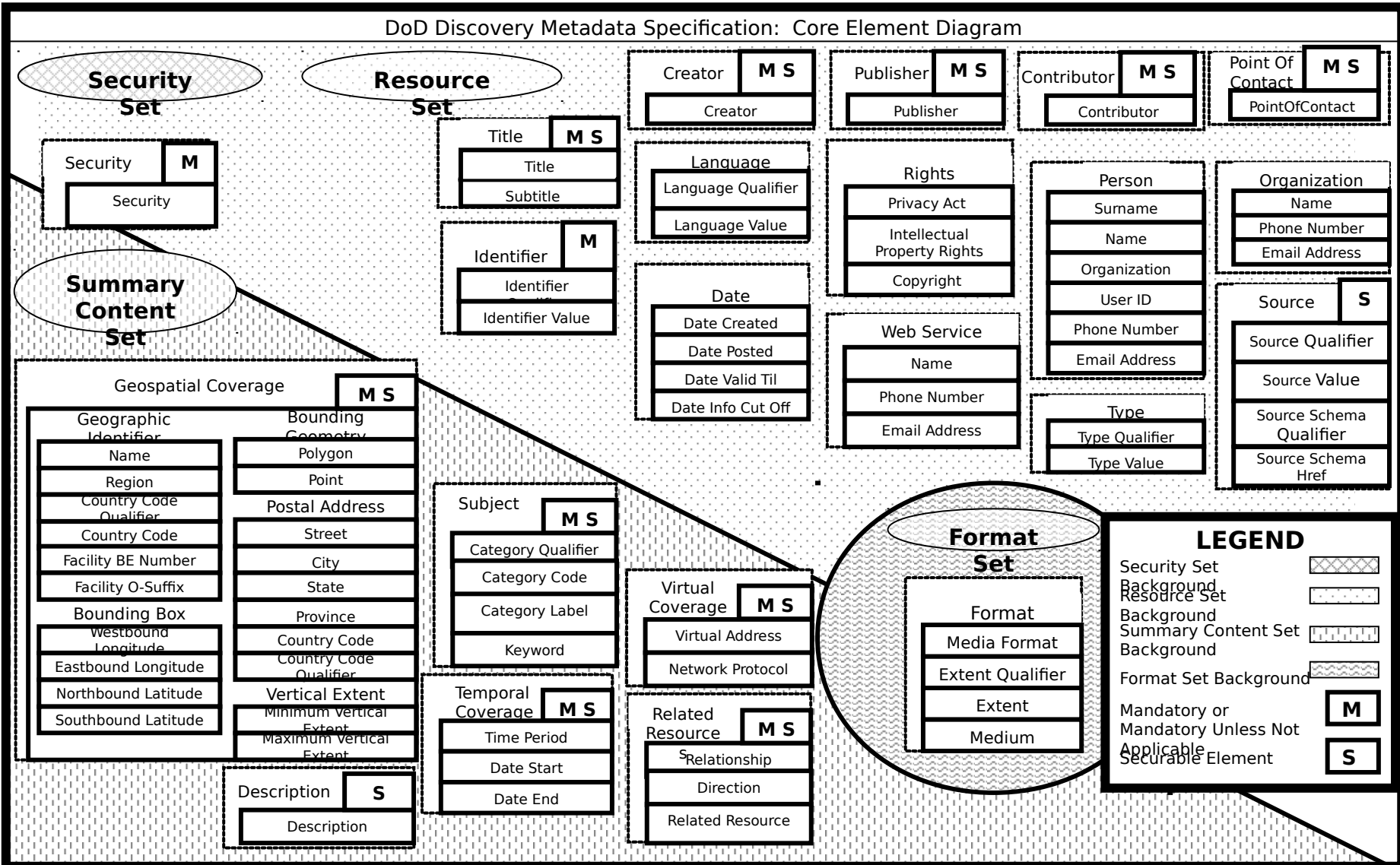
# DDMS and The DoD Net-Centric Data Strategy

- **“The DDMS is the common set of descriptive metadata elements that are to be associated with each data asset that is made visible to the Enterprise Discovery capability...” [DDMS]**
- **“...‘Enterprise’ refers to the Department of Defense, its organizations and related agencies.” [DDMS]**
- ***“The DoD Net-Centric Data Strategy* defines a data asset as any entity that is composed of data. For example, a database is a data asset that contains data records; e.g., system or application output files, databases, documents, or web pages.” [DDMS]**
- **“The term ‘data asset’ also refers to services that provide access to data.” [DDMS] (emphasis added)**



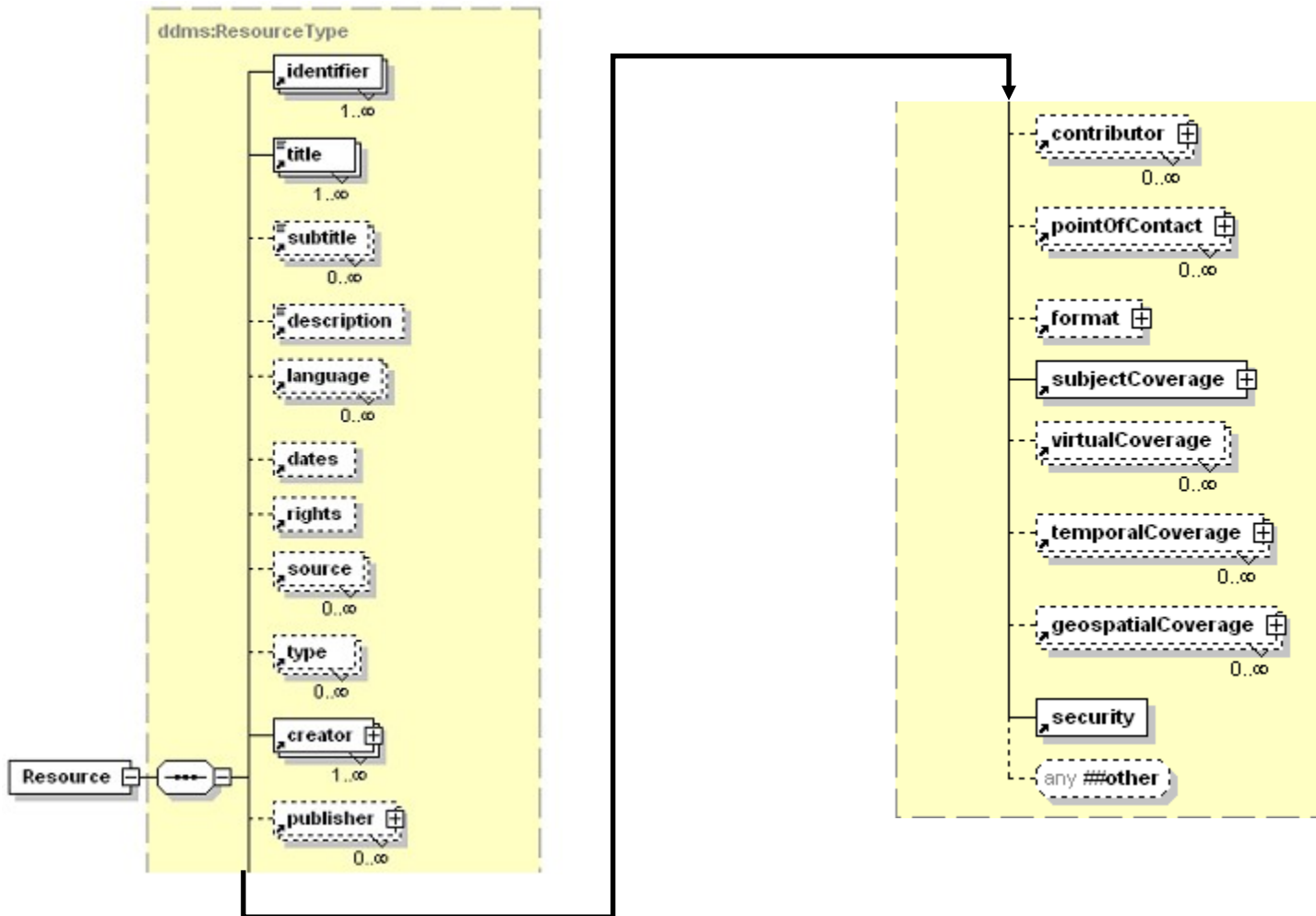
# DDMS Specification

DoD Discovery Metadata Specification: Core Element Diagram



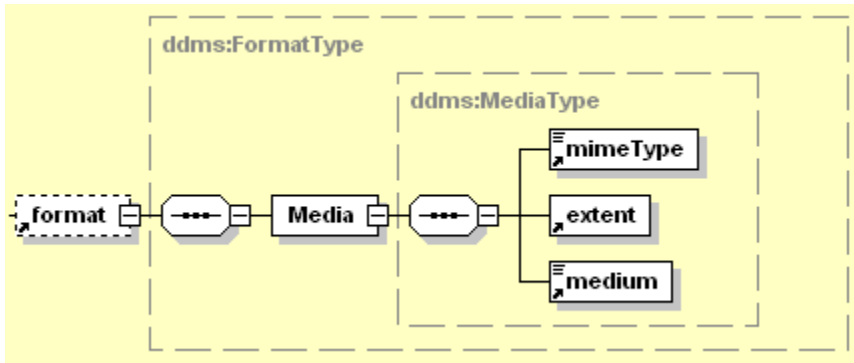


# DDMS XML Format





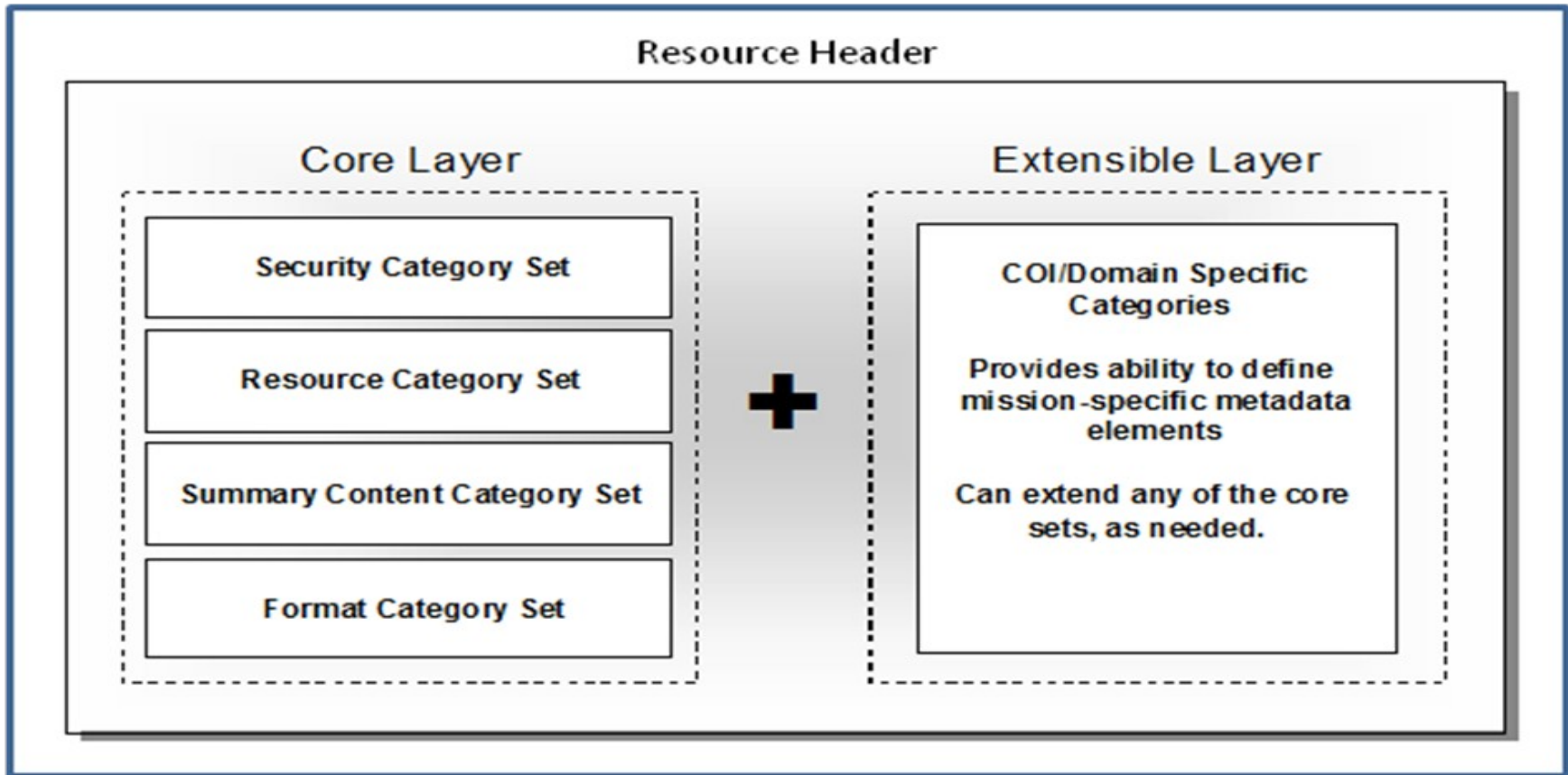
# DDMS XML Format



```
<ddms:format>
  <ddms:Media>
    <ddms:mimeType>text/html</ddms:mimeType>
    <ddms:extent
ddms:qualifier="http://metadata.dod.mil/mdr/ns/UnitOfMeasure/0.1/ComputerStorage.owl#byte"
ddms:value="39195"/>
    <ddms:medium>digital</ddms:medium>
  </ddms:Media>
</ddms:format>
```



# DDMS Extensibility



The DDMS XML Schema implements the Extensible Layer by leveraging the `xsd:any` element. This allows any elements from any namespace other than the DDMS namespace to be added to a DDMS record immediately following the `ddms:security` element.



## More on DDMS

- **You can find out more about the DDMS at:** <http://metadata.dod.mil/mdr/irs/DDMS/>.
  - This site contains the most up-to-date information on the DDMS, including visibility into the current configuration management items.
- **Affecting and changing the DDMS**
  - There is a process for submitting a Change Request that is described at: [https://metadata.dod.mil/mdr/irs/DDMS/cm/RFC\\_Process.html](https://metadata.dod.mil/mdr/irs/DDMS/cm/RFC_Process.html)
  - Alternatively you can contact [ddms@fgm.com](mailto:ddms@fgm.com) and we will assist you in navigating the process.





# DoDIIS Metadata Workshop



## ***DCGS Multi-Service Execution Team***

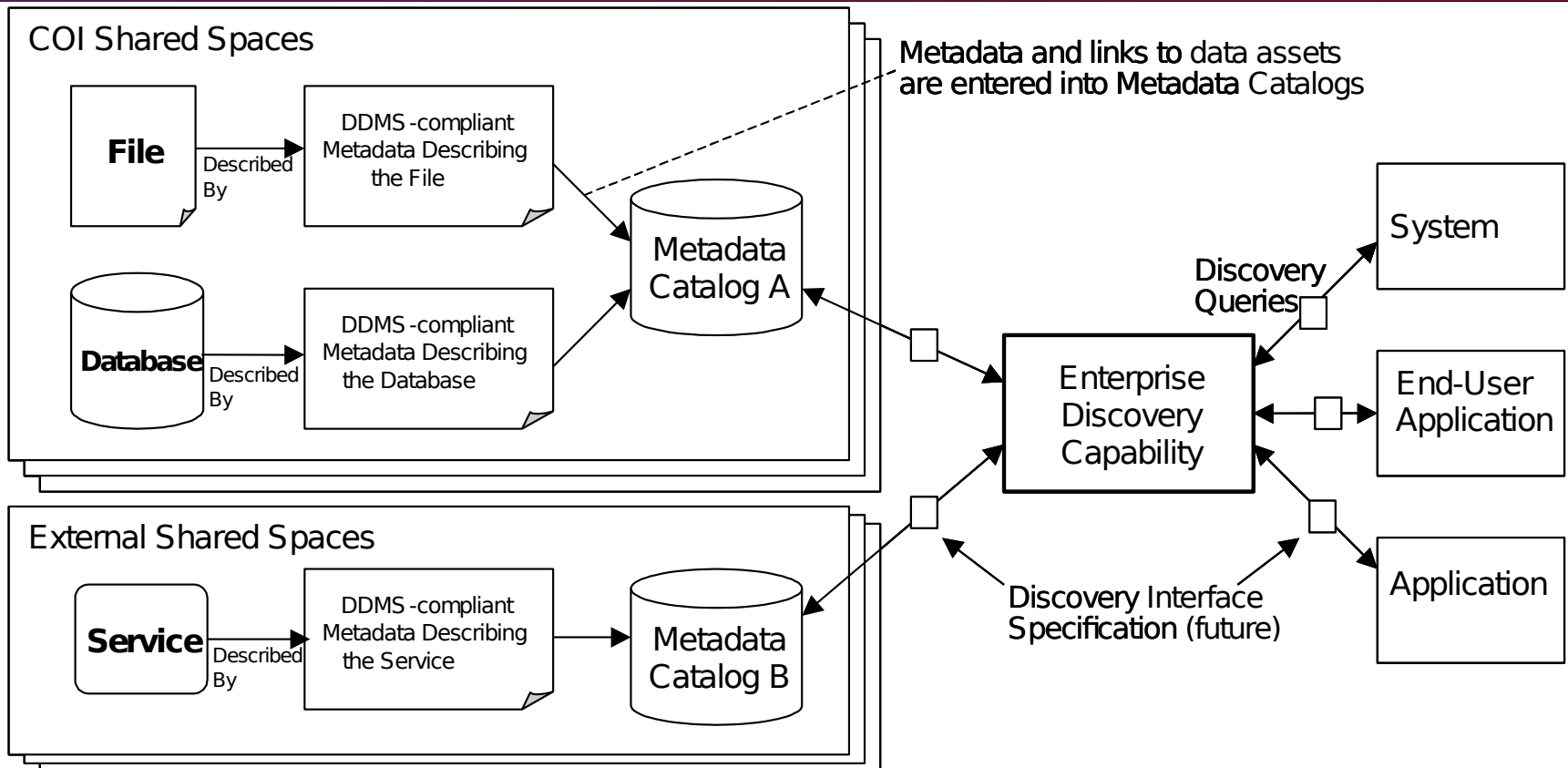
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***2010 DoDIIS Worldwide Conference  
Discovery Metadata Harmonization Workshop***

**May 23 - 27, 2010**



# DoD Data Strategy for Data Sharing



**Assets are 'advertised'**  
by describing themselves in terms of  
DDMS metadata elements...

**...assets are 'discovered'**  
by the Enterprise Discovery capability  
that performs searches against  
DDMS metadata catalog entries



# DCGS Data Strategy

## Data Management Attributes

- *Visible*
  - Tag data with metadata to help discover the right information
- *Accessible*
  - Make data accessible over the network
  - Replicate data for redundancy and survivability
- *Understandable*
  - Data definitions based upon common vocabularies understood across COIs
- *Trusted*
  - Known sources
  - Clear security and access control for each asset





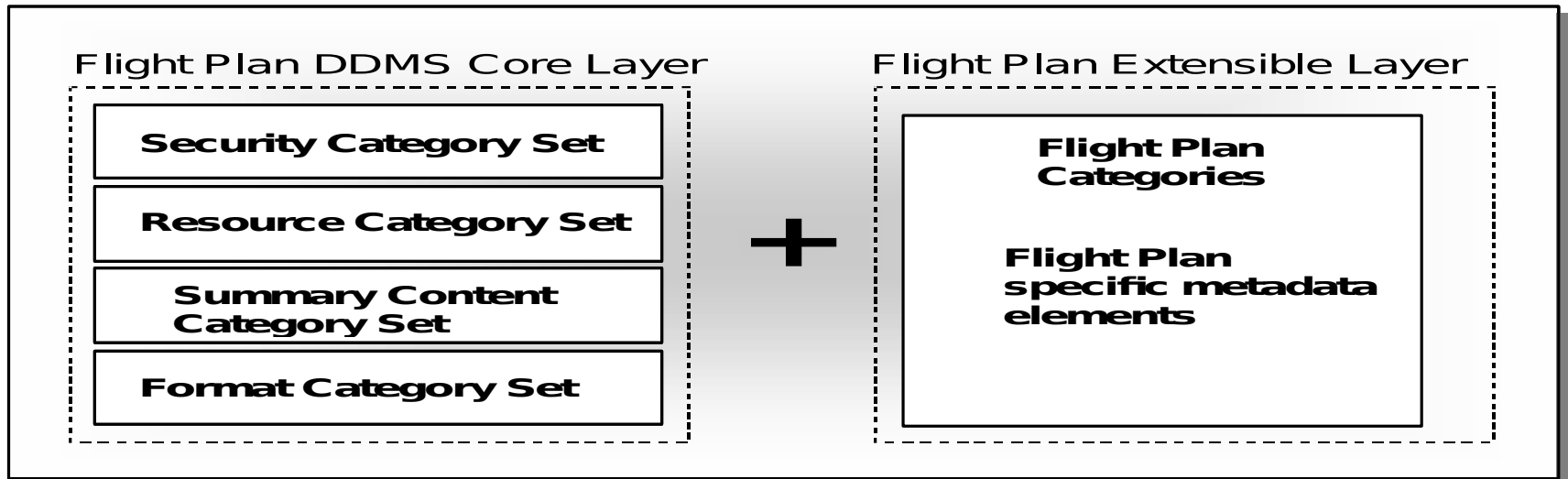
Form Approved: OMB No. 3120-0126  
09/30/2006

[illegible]

CLOSE VFR FLIGHT PLAN WITH FSS ON ARRIVAL



# Metadata Harmonization Exercise



- 1. Determine how to share the domestic and international flight plans using the metadata in the DDMS core layer.**
- 2. Define the metadata in an extensible layer, if needed, to share the flight plans.**
- 3. Define the vocabulary terms needed to understand the flight plans.**





# Exercise: Populating the DDMS Metadata Catalog Core

Core Layer Category Set	Primary Category	Obligation	Metadata Population Rules
The <u>Security</u> elements enable the description of security classification and related fields	Security	Mandatory	
The <u>Resource</u> elements enable the description of maintenance and administration information	Title	Mandatory	
	Identifier	Mandatory	
	Creator	Mandatory (with exception)	
	Publisher	Mandatory (with exception)	
	Contributor	Mandatory (with exception)	
	PointOfContact	Mandatory (with exception)	
	Date	Optional	
	Rights	Optional	
	Language	Optional	
	Type	Optional	
	Source	Optional	
The <u>Summary Content</u> elements enable the description of concepts and topics	Subject	Mandatory	
	Geospatial Coverage	Mandatory unless not Applicable	
	Temporal Coverage	Mandatory unless not Applicable	
	Virtual Coverage	Optional	
	Description	Optional	
The <u>Format</u> elements enable the description of physical attributes of the asset	Related Resources	Optional	
	Format	Optional	

- **Populating the DDMS Catalog Core requires**
  - Understanding the DDMS core categories and elements
  - Understanding the data available in the data asset
  - Understanding the data available in the system context of the data store
  - Finding data in the data asset or system context that maps to the DDMS core categories and elements semantically
  - Defining the rules for populating the DDMS data with the data available in the data asset or system context



# Exercise: Template for Populating the DDMS Metadata Catalog Core

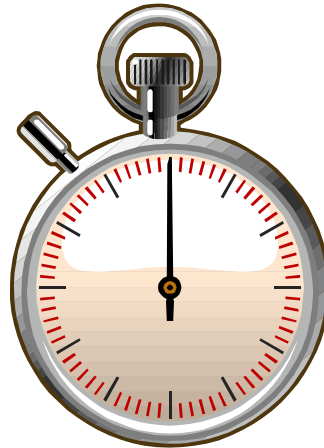
DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Security (Mandatory)</b>	Security Attributes for the data asset. DDMS implements the IC security attributes: classification, ownerProducer, classificationReason, classifiedBy, declassDate, SCIcontrols, disseminationControls, FGIsourceOpen, releasableTo		
<b>Title (Mandatory)</b>	<p><b>Title</b> Typically, a title will be a name by which the resource is formally known.</p> <p><b>Subtitle</b> A subtitle may be any form of the title used as a substitute, or it may be an alternative to the formal title of the resource.</p> <p><b>Security Attributes</b></p> <ol style="list-style-type: none"> <li>1. classification</li> <li>2. ownerProducer</li> </ol>		
<b>Identifier (Mandatory)</b>	<p><b>Identifier Qualifier</b> A qualifier that specifies the domain from which the identifier value is taken.</p> <p><b>Identifier Value</b> An unambiguous reference to the resource within a given context. An internal, external, and/or universal identification number for a data asset or resource</p>		
<b>Creator (Mandatory with exception)</b>	Creator contains <b>Person, Organization</b> or <b>Web Service</b> data for an Entity that is a Creator.		
<b>Publisher (Mandatory with exception)</b>	Contains <b>Person, Organization</b> or <b>Web Service</b> data for an Entity that is a Publisher.		



# Exercise: DDMS Catalog Core

- **Complete the DDMS Catalog Core Template for the Domestic and International Flight Plans**

- **10 Minutes**







# Exercise: Populating the DDMS Metadata Catalog Core

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Security (Mandatory)</b>	DDMS implements the IC security attributes: 1. classification 2. ownerProducer 3. SCIcontrols 4. SARIdentifier 5. FGIsourceOpen 6. FGIsourceProtected 7. disseminationControls 8. releasableTo 9. nonICmarkings 10. classifiedBy 11. classificationReason 12. derivedFrom 13. declassDate 14. declassException 15. declassEvent 16. typeOfExemptedSource 17. dateOfExemptedSource 18. declassManualReview	<p>Security metadata for the data asset is defined in the Security element. Security metadata is defined for the catalog entry in the resource header security attributes in DDMS 3.0.</p> <p>The FAA report does not have any security information so the security metadata needs to be derived from system context or some other information.</p> <p><b>Security:</b> The classification, ownerProducer, disseminationControls, and releasableTo should be set for the highest level applicable to the data asset IAW CAPCO and IC guidelines.</p>	<p>Security metadata for the data asset is defined in the Security element. Security metadata is defined for the catalog entry in the resource header security attributes in DDMS 3.0.</p> <p>The FAA report does not have any security information so the security metadata needs to be derived from system context or some other information.</p> <p><b>Security:</b> The classification, ownerProducer, disseminationControls, and releasableTo should be set for the highest level applicable to the data asset IAW CAPCO and IC guidelines.</p>

DDMS 3.0 added the ability to define security and other attributes for the DDMS record in the Resource header.



# Exercise: Populating the DDMS Metadata Catalog Core continued 1

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Title (Mandatory)</b>	<b>Title</b> Typically, a title will be a name by which the resource is formally known. <b>Subtitle</b> A subtitle may be any form of the title used as a substitute, or it may be an alternative to the formal title of the resource. <b>Security Attributes</b> 1. classification 2. ownerProducer	<b>Title:</b> Domestic Flight Plan <b>Subtitle:</b> FAA 7233-1 <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.	<b>Title:</b> International Flight Plan <b>Subtitle:</b> FAA 7233-4 <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.
<b>Identifier (Mandatory)</b>	<b>Identifier Qualifier</b> A qualifier that specifies the domain from which the identifier value is taken. <b>Identifier Value</b> An unambiguous reference to the resource within a given context. An internal, external, and/or universal identification number for a data asset or resource	<b>Identifier Qualifier:</b> ID <b>Identifier Value:</b> DADgetID(), <b>Identifier Qualifier:</b> URI <b>Identifier Value:</b> DADgetURI(), <b>Identifier Qualifier:</b> Classname <b>Identifier Value:</b> DADgetClassname(), <b>Identifier Qualifier:</b> Size <b>Identifier Value:</b> DADgetSize()	<b>Identifier Qualifier:</b> ID <b>Identifier Value:</b> DADgetID(), <b>Identifier Qualifier:</b> URI <b>Identifier Value:</b> DADgetURI(), <b>Identifier Qualifier:</b> Classname <b>Identifier Value:</b> DADgetClassname(), <b>Identifier Qualifier:</b> Size <b>Identifier Value:</b> DADgetSize()
<b>Creator (Mandatory with exception)</b>	Creator contains <b>Person, Organization</b> or <b>Web Service</b> data for an Entity that is a Creator.	<b>Creator Person:</b> Use Field 14 to obtain Pilot's Name, Address, and Telephone number. <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.	<b>Creator Organization:</b> Use header Originator information if available; <b>Creator Person:</b> If Originator is not available, then use Field 19 Pilot-in-Command if available. If neither Originator nor Pilot-in-Command is available, then use "Unknown". <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.

DDMS 3.0 changed Creator, Publisher, Contributor, and PointofContact obligation to Mandatory with exception and added security attributes for these elements.



# Exercise: Populating the DDMS Metadata Catalog Core continued 2

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Publisher (Mandatory with exception)</b>	Contains <b>Person, Organization</b> or <b>Web Service</b> data for an Entity that is a Publisher.	Do not specify because we do not have enough information.	Do not specify because we do not have enough information.
<b>Contributor (Mandatory with exception)</b>	Contains <b>Person, Organization</b> or <b>Web Service</b> data for an Entity that is a Contributor.	Do not specify because we do not have enough information.	Do not specify because we do not have enough information.
<b>PointofContact (Mandatory with exception)</b>	Contains <b>Person, Organization</b> or <b>Web Service</b> data for an Entity that is a Creator.	<b>PointofContact Organization:</b> If available, the local departure Air Traffic Control organization should be used; otherwise do not specify. <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.	<b>PointofContact Organization:</b> If available, the local departure Air Traffic Control organization should be used; otherwise do not specify. <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.
<b>Date</b>	<b>Date Created</b> Date of creation of the resource <b>Date Posted</b> The date a product is posted to a shared network or system. <b>Date Valid Til</b> The date that a product should be removed from a registry, index, or catalog <b>Date Info Cut Off</b> The cutoff date of information in a product. This is commonly referred to as Information Cutoff Date (ICOD). It is the date of last input.	Dates are associated with events in the lifecycle of the data. <b>Date Created:</b> Do not specify at this time because the forms do not indicate when the data was created. <b>Date Posted:</b> This is set by the Metadata framework to the time the entry is posted to the catalog. <b>Date ValidTil:</b> Do not specify at this time because the forms do not have this information and it will be derived from FAA regulations. <b>Date Info Cut Off:</b> Do not specify at this time because the forms do not indicate a cutoff date.	Dates are associated with events in the lifecycle of the data. <b>Date Created:</b> Do not specify at this time because the forms do not indicate when the data was created. <b>Date Posted:</b> This is set by the Metadata framework to the time the entry is posted to the catalog. <b>Date ValidTil:</b> Do not specify at this time because the forms do not have this information and it will be derived from FAA regulations. <b>Date Info Cut Off:</b> Do not specify at this time because the forms do not indicate a cutoff date.

DDMS 3.0 changed Creator, Publisher, Contributor, and PointofContact obligation to Mandatory with exception and added security attributes for these elements.



# Exercise: Populating the DDMS Metadata Catalog Core continued 3

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Rights</b>	<p><b>Privacy Act</b> An indicator that this product is categorized as containing personal information subject to protection by the Privacy Act.</p> <p><b>Intellectual Property Rights</b> An indicator identifying products under protection against reproduction and distribution without the express written permission of the intellectual property rights owner.</p> <p><b>Copyright</b> An indicator identifying products under protection against reproduction and distribution without the express written permission of the copyright owner</p>	<p>Do not specify because Rights do not apply to the flight plans.</p> <p>Pilot information is publicly available from the FAA. Pilot Information on the FAA flight plans is not subject to the Privacy Act.</p>	<p>Do not specify because Rights do not apply to the flight plans.</p> <p>Pilot information is publicly available from the FAA. Pilot Information on the FAA flight plans is not subject to the Privacy Act.</p>
<b>Language</b>	<p><b>Language Qualifier</b> The value that specifies the originating agency or discipline of the language vocabulary.</p> <p><b>Language Value</b> The identification of the content language.</p>	<p><b>Language Qualifier:</b> ISO 639-2 <b>Language Value:</b> ENG</p>	<p><b>Language Qualifier:</b> ISO 639-2 <b>Language Value:</b> ENG</p>
<b>Type</b>	<p><b>Type Qualifier</b> The value that specifies the source of the type vocabulary.</p> <p><b>Type Value</b> Type includes terms describing general categories, functions, genres, or aggregation levels for content.</p>	<p><b>Type Qualifier:</b> DCMI <b>Language Value:</b> text</p>	<p><b>Type Qualifier:</b> DCMI <b>Language Value:</b> text</p>



# Exercise: Populating the DDMS Metadata Catalog Core continued 4

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Source</b>	<p><b>Source Qualifier</b> The value that specifies a formal identification system used to reference a source.</p> <p><b>Source Value</b> The identifier of a referenced source.</p> <p><b>Source Schema Qualifier</b> The schema type used to identify the format of the resource.</p> <p><b>Source Schema Href</b> A resolvable reference to the schema for the data asset.</p>	<p>If a Service Oriented Architecture (SOA) or service provides access to the data, then the service, a WSDL, and/or schema could be specified here.</p> <p>Do not specify because we do not have enough information to specify at this time.</p>	<p>If a Service Oriented Architecture (SOA) or service provides access to the data, then the service, a WSDL, and/or schema could be specified here.</p> <p>Do not specify because we do not have enough information to specify at this time.</p>
<b>Subject (Mandatory)</b>	<p><b>Category Qualifier</b> A category qualifier specifies the source of the vocabulary for the category.</p> <p><b>Category Code</b> The machine readable description of a concept represented within the scope of the category qualifier.</p> <p><b>Category Label</b> The human readable description of the concept represented by both the category qualifier and the category code.</p> <p><b>Keyword</b> An important word or concept that is addressed in the resource</p>	<p><b>Category Qualifier:</b> FAA <b>Category Label:</b> domestic aircraft flight plan</p> <p><b>Category Qualifier:</b> Airports <b>Category Label:</b> Name of departure airport</p> <p><b>Category Qualifier:</b> Airports <b>Category Label:</b> Name of destination airport</p> <p><b>Category Qualifier:</b> Pilots <b>Category Label:</b> Name of pilot</p>	<p><b>Category Qualifier:</b> ICAO <b>Category Label:</b> international aircraft flight plan</p> <p><b>Category Qualifier:</b> Airports <b>Category Label:</b> Name of departure airport</p> <p><b>Category Qualifier:</b> Airports <b>Category Label:</b> Name of destination airport</p> <p><b>Category Qualifier:</b> Pilots <b>Category Label:</b> Name of pilot</p>

DDMS 3.0 added security attributes for Subject.





# Exercise: Populating the DDMS Metadata Catalog Core continued 5

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
Geospatial Coverage	<p><b>Geographic Identifier</b> A wrapper for an identifier or reference to an identifier that describes a geographic extent using a name or other identifier. See also ISO 19115 (EX_GeographicDescription).</p> <p><b>Geographic Bounding Box</b> A wrapper for elements containing the bounding longitudes and latitudes for describing a geographic extent. See also ISO 19115.</p> <p><b>Geographic Bounding Geometry</b> A wrapper for child elements used to express a geographic location as a point (using coordinates) or a polygon (a set of connected coordinates). See also ISO 19115 (EX_BoundingPolygon).</p> <p><b>Postal Address</b> A wrapper for postal address elements including street, city, state or province, postal code and country code.</p> <p><b>Vertical Extent</b> A wrapper for child elements used to describe the vertical extent applicable to the resource.</p> <p>-----other geospatial coverage options omitted on slide to save space ....</p>	<p><b>Name:</b> Use field 5 Departure Point (this field has the name of the departure airport)</p> <p><b>Name:</b> Use field 9 Destination (this field has the name of the destination airport)</p> <p><b>Vertical Extent:</b> Use field 7 Cruising Altitude</p>	<p><b>Name:</b> Use field 13 Departure Aerodrome</p> <p><b>Name:</b> Use field 16 Destination Aerodrome</p> <p><b>Vertical Extent:</b> Use field 15 Level</p>
Temporal Coverage	<p><b>Date Start</b> The start date of a period of time.</p> <p><b>Date End</b> The end date of a period of time.</p> <p><b>Time Period</b> An interval of time, which can be expressed as a named era.</p>	<p><b>Time Period:</b> Flight Time</p> <p><b>Date Start:</b> Use field 6 Proposed departure time</p> <p><b>Date End:</b> Use field 10 Estimated Time Enroute with field 6 to compute the Date End.</p>	<p><b>Time Period:</b> Flight Time</p> <p><b>Date Start:</b> Use field 13 time</p> <p><b>Date End:</b> Use field 16 Total Estimated Elapsed Time (EET) with field 13 to compute the Date End.</p>

DDMS 3.0 added security attributes for Geospatial Coverage and Temporal Coverage.



# Exercise: Populating the DDMS Metadata Catalog Core continued 6

DDMS Catalog Core Category	Description of DDMS Catalog Core	FAA 7233-1 Rules for populating the DDMS Catalog Core	FAA 7233-4 Rules for populating the DDMS Catalog Core
<b>Virtual Coverage</b>	<b>Virtual Address</b> A computer or telecommunications network address, or a network name or locale. <b>Network Protocol</b> The type of rules for data transfer that apply to the Virtual Address.	Not applicable. Do not specify.	Not applicable. Do not specify.
<b>Description</b>	<b>Description</b> The tag used to provide a short description of the product subject, contents and any "bottom line" point the resource conveys.	<b>Description:</b> Use the actual airport names associated with fields 5 and 9 to create the string "Flight from <departure point> to <destination>" <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.	<b>Description:</b> Use the actual airport names associated with fields 13 and 16 to create the string "Flight from <departure aerodrome> to <destination aerodrome>" <b>Security Attributes:</b> The classification and owner Producer should be set IAW CAPCO and IC guidelines.
<b>Related Resources</b>	<b>Related Resources</b> Designates the relationship and the directionality of the relationship between the resource being described and any Related Resource elements.  <b>---other related resources metadata options omitted on slide to save space ...</b>	The form does not indicate any relationships with other resources. Do not specify because do not have enough information to specify at this time.	The form does not indicate any relationships with other resources. Do not specify because do not have enough information to specify at this time.
<b>Format</b>	<b>Media Format</b> The MIME type for the product object to which this metadata applies. <b>Extent Qualifier</b> A vocabulary that specifies the type of format extent that will be supplied. <b>Extent</b> A related data size, compression rate, or pixel size (etc.) of the resource. <b>Medium</b> The physical medium or instantiation of the resource.	The flight plans could be recorded on the paper form, FAXed to the Air Traffic Control, or created by an automated tool. Do not specify because we do not have enough information to specify at this time.	The flight plans could be recorded on the paper form, FAXed to the Air Traffic Control, or created by an automated tool. Do not specify because we do not have enough information to specify at this time.

DDMS 3.0 added security attributes for Virtual Coverage.



# Exercise: Extensible Layer

- **From DoD 8320.2-g:**
  - The user community is in the position to anticipate how users might want to find data assets, in part based on the data assets' context or content. Supplementing the rudimentary discovery metadata elements found in the DDMS core, the extensions detail elements of discovery metadata that aid in enterprise-wide discovery of data assets....
- **Determine if there is some important discovery information not included in the DDMS core.**
  - An extension is needed if the DDMS core does not cover all of the discovery information.
- **If an extension is needed, identify the metadata that should be in the**



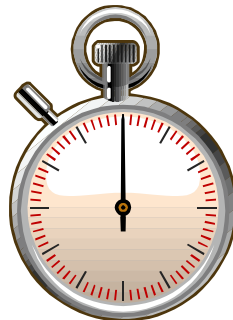


# Exercise: Extensible Layer

Proposed Extension Metadata Element: \_\_\_\_\_

Data Dictionary Information	Domestic Flight Plan FAA 7233-1	International Flight Plan FAA 7233-4
Name of Source Data element		
Description of element		
Owner (Controlling Authority)		
Format or data type		
Size (bytes, etc.)		
Legal values		

- **Use the above template to identify the discovery metadata that should be in the extension.**



- **5 Minutes**



# Exercise: Extensible Layer for the Flight Plans

Proposed Extension Metadata Element: Aircraft Type

1. Aircraft Type Qualifier will indicate the coding scheme for the aircraft type, for example, FAA or ICAO.
2. Aircraft Type Value will contain the actual coded Aircraft Type from either the FAA or ICAO
3. Common name of aircraft type (eg, Boeing 747)

<b>Data Dictionary Information</b>	<b>Domestic Flight Plan FAA 7233-1</b>	<b>International Flight Plan FAA 7233-4</b>
Name of Source Data element	Field 3: Aircraft Type	Field 9: Type of Aircraft
Description of element	Aircraft type in IAW FAAO JO 7340.2	Approved type designator consistent with ICAO Doc 8643.
Owner (Controlling Authority)	FAA	ICAO
Format or data type	3 coded alphanumerics	4 coded alphanumerics
Size (bytes, etc.)	3 Characters	4 characters
Legal values	Coded values: First character: Type of aircraft, Second character: Engine count Third character: Engine Type	Defined list of values for every known aircraft in ICAO 8643



# Exercise: Vocabulary

**Vocabulary.** Represents agreements on the terms and definitions common to the COI, including data dictionaries. For example, one COI might define the term “tank” to mean a pressurized vessel, whereas another might define “tank” to mean a tracked vehicle. Both definitions are acceptable, but the user must understand these definitions, and their context, to properly use the data. (DoD 8320.2-G)

**Authoritative Source.** A source of data or information that is recognized by members of a community of interest to be valid or trusted because it is considered to be highly reliable or accurate or is from an official publication or reference (e.g., the United States Postal Service is the official source of U.S. mailing zip codes.). (DoDD 8320.2)

## Example of Vocabulary Entry

Term	Synonym(s)	Definition	Authoritative Source
International Civil Aviation Organization airport code	ICAO identifier, ICAOID	The ICAO airport code or location indicator is a four-letter alphanumeric code designating each airport around the world.	These codes are defined by the International Civil Aviation Organization, and published in ICAO Document 7910: <i>Location Indicators</i> .



# Exercise: Vocabulary

Term	Synonym(s)	Definition	Authoritative Source

- **Use the above template to identify some of the important concepts used in both flight plans. Make note of the terms used in each flight plan if different terms are used.**



- **5 Minutes**



# Exercise: Vocabulary for the Flight Plans

Term	Synonym(s)	Definition	Authoritative Source
Aerodome	Airport, Airfield	A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure, and movement of aircraft.	U.S. DOT FAA
Airspeed	Indicated Airspeed, True Airspeed	The speed of an aircraft relative to its surrounding air mass. The unqualified term "airspeed" means one of the following: <b>a.</b> Indicated Airspeed—The speed shown on the aircraft airspeed indicator. This is the speed used in pilot/controller communications under the general term "airspeed." <b>b.</b> True Airspeed—The airspeed of an aircraft relative to undisturbed air. Used primarily in flight planning and en route portion of flight. When used in pilot/controller communications, it is referred to as "true airspeed" and not shortened to "airspeed."	U.S. DOT FAA
Airway		A control area or portion thereof established in the form of corridor equipped with radio navigational aids.	ICAO
Cruising Altitude	Altitude, Cruising Level, Flight Level	An altitude or flight level maintained during en route level flight. This is a constant altitude and should not be confused with a cruise clearance.	U.S. DOT FAA
Departure Time		The time an aircraft becomes airborne.	U.S. DOT FAA
Estimated Elapsed Time	EET, Total EET	The estimated time required to proceed from one significant point to another.	ICAO
Estimated Time En Route		The estimated flying time from departure point to destination (lift-off to touchdown).	U.S. DOT FAA
Pilot in command	Pilot	The pilot responsible for the operation and safety of an aircraft during flight time.	U.S. DOT FAA
Route	Airway, Jet Route	A defined path, consisting of one or more courses in a horizontal plane, which aircraft traverse over the surface of the earth.	U.S. DOT FAA



## Recap

- **We have completed an example of the discovery metadata harmonization process needed to implement Information Sharing.**
- **The discovery metadata harmonization process**
  - Identified how information from two different types of flight plans can be shared using the DoD Discovery Metadata Specification (DDMS) core metadata
  - Identified additional discovery metadata needed in an extension to the DDMS core metadata
  - Identified some common terms and their definitions needed to understand the information



# DoDIIS Conference Metadata Workshop

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